

1. In a method for attaching soft tissue to bone by passing a suture through a transosseous tunnel in the bone and affixing the soft tissue with the suture, the improvement for reinforcing an opening at the end of the tunnel, comprising the steps of

A. placing an eyelet into the end of the tunnel, the eyelet having an channel extending therethrough;

B. passing the suture through the channel of the eyelet, as well as through the transosseous tunnel, in order to affix the soft tissue to the bone with the suture.

2. In a method for rotator cuff repair by attaching the spinatus tendon to the humerus by passing a suture through a transosseous tunnel in the bone and affixing the soft tissue with the suture, the improvement for reinforcing the tunnel, comprising the steps of

A. placing an eyelet into an end of the tunnel, the eyelet having an channel extending therethrough;

B. passing the suture through the channel of the eyelet, as well as through the transosseous tunnel, in order to affix the soft tissue to the bone with the suture.

3. In a method according to any of claims 1 and 2, the further improvement comprising screwing the eyelet into bone at the end of the tunnel.

4. In a method according to any of claims 1 and 2, the further improvement comprising affixing the eyelet into bone at the end of the tunnel by interference fit.

5. In a method according claim 2, the further improvement comprising expanding an opening at the end of the tunnel prior to placing the eyelet therein.

6. A device for reinforcing a transosseous tunnel to prevent migration of a suture through bone at the end thereof, comprising an eyelet arranged for placement within any of (i) a bone hole forming the end of the tunnel, and (ii) an expansion of the bone hole forming the end of the tunnel, said eyelet having a channel extending therethrough for passage of the suture.

7. A device for use in rotator cuff repair for reinforcing a transosseous tunnel to prevent migration of a suture through humerus bone at the end of the tunnel, the device comprising an eyelet arranged for placement within any of (i) a bone hole forming the end of the tunnel, and (ii) an expansion of the bone hole forming the end of the tunnel, said eyelet having a channel extending therethrough for passage of the suture.

8. A device according to any of claims 6 and 7, wherein the body of the eyelet is threaded for screwing into bone wall on any of (i) an inside of the bone hole forming the end of the tunnel, and (ii) an expansion of the bone hole forming the end of the tunnel.

9. A device according to any of claims 6 and 7, wherein the body of the eyelet is arranged for interference fit with the bone wall on any of (i) an inside of

the bone hole forming the end of the tunnel, and (ii) an expansion of the bone hole forming the end of the tunnel.

10. A device according to any of claims 6 and 7, wherein the eyelet includes a flanged head portion.
11. A device according to any of claims 6 and 7, wherein the eyelet comprises
  - A. an expandable member having an channel extending therethrough; and
  - B. an insertion element including an channel extending therethrough, at least a portion of the insertion element including an outer diameter greater than an inner diameter of the channel at least a portion of the expandable member for expansion thereof upon engagement therewith, whereby, inserting the insertion element into the expandable member causes the expandable member to expand to obtain a pressure fit with the bone opening.
12. In a method for attaching soft tissue to bone by passing a suture through an opening in the bone and affixing the soft tissue with the suture, the improvement for reinforcing the bone opening comprising
  - A. placing an expandable member into an end of the bone opening, the expandable member having an channel extending therethrough;
  - B. inserting an insertion element into the channel of the expandable member, the insertion element including an channel extending therethrough, at least a portion of the insertion element including an outer diameter greater than an inner diameter of the channel at least a portion of the expandable member for expansion thereof upon engagement therewith, whereby, inserting the

insertion element into the expandable member causes expandable member to expand to obtain a pressure fit with the bone opening; and

- C. passing the suture through the channel of the insertion element, as well as through the opening in the bone, in order to affix the soft tissue to the bone with the suture.

13. In a method for attaching soft tissue to bone by passing a suture through an opening in the bone and affixing the soft tissue with the suture, the improvement for reinforcing the bone opening comprising

- A. placing a substantially cylindrical expandable member into an end of the bone opening, the expandable member having an axial channel extending between its proximal and distal ends;
- B. inserting an elongate insertion element into the channel of the expandable member, the insertion element including an axial channel extending between its proximal and distal ends, at least a portion of the insertion element including an outer diameter greater than an inner diameter of at least a portion of the axial channel of the expandable member for expansion thereof upon engagement therewith, whereby, inserting the insertion element into the expandable member causes expandable member to be to expand to obtain a pressure fit with the bone opening; and
- C. passing the suture through the axial channel of the insertion element, as well as through the opening in the bone, in order to affix the soft tissue to the bone with the suture.

14. In a method according to any of claims 12 and 13, wherein the method is adapted for rotator cuff repair, the further improvement wherein the placing step includes the step of placing the expandable member into an end of a transosseous tunnel in the humerus.

15. In a method according to any of claims 12 and 13, the further improvement comprising using an emplacement element to place an expandable member into the end of the bone opening.

16. In a method according to claim 15, the further improvement wherein the expandable member being frangibly attached to the emplacement element.

17. In a method according to claim 16, the further improvement wherein the inserting step includes applying force to the insertion element, and the method comprises breaking the frangible attachment between the expandable member and the emplacement element by applying force to the insertion element subsequent to expansion of the expandable member in the bone opening.

18. In a method according to claim 17, wherein the method is adapted for rotator cuff repair, the further improvement wherein the placing step includes the step of placing the expandable member into an end of a transosseous tunnel in the humerus.

19. In a method for attaching soft tissue to bone by passing a suture through an opening in the bone and affixing the soft tissue with the suture, the improvement for reinforcing the bone opening comprising

A. using an emplacement element to place an expandable member into an end of the bone opening, the expandable member having an channel extending therethrough, the expandable member being frangibly attached to the emplacement element;

B. applying a compressive force to said expandable member to expand its channel so that an outer surface of said expandable member engages with the bone; and

C. breaking the frangible attachment between the expandable member and the emplacement element, and removing the emplacement element; and

D. passing the suture through the axial channel of the insertion element, as well as through the opening in the bone, in order to affix the soft tissue to the bone with the suture.

20. In a method according to claim 19, the further improvement comprising applying the compressive force to the expandable element by inserting into the channel thereof an insertion element including an outer diameter greater than an inner diameter of at least a portion of the channel of the expandable member for expansion thereof upon engagement therewith.

21. In a method according to any of claims 19 and 20, wherein the method is adapted for rotator cuff repair, the further improvement wherein the emplacement element is used to place the expandable member into an end of a transosseous tunnel in the humerus.